We Claim:

1. A method of monitoring flow of packet-based communications traffic comprising the steps of:
   - setting a first time interval over which measurements are to be made;
   - counting number of packets flowing during that time interval;
   - using the count to derive parameters which are indicative of the traffic meeting a sustained cell rate (SCR) requirement.

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2. A method according to claim 1 wherein the derived parameters are: current packet rate and a running difference between the counted number of packets and an expected number of packets.

3. A method according to claim 2 wherein each of the derived parameters is compared with a respective parameter indicative of capacity on the link or an agreed traffic contract, and the result of both comparisons is used to determine compliance with the requirement.

4. A method according to claim 3, further comprising determining operational states for a traffic source, determining a set of congestion states, each congestion state mapping to an operational state for the source, and wherein comparison of the measured parameters with the parameters indicative of available capacity is used to derive a new congestion state for the source.

5. A method according to claim 4 wherein the new congestion state is a function of the old congestion state and the measured parameters.

6. A method according to claim 1 wherein the first time interval is approximately 500ms.

7. A method according to claim 1 further comprising the steps of:
   - setting a second time interval over which measurements are to be made;
   - counting number of packets flowing during that time interval ;
   - using the count to derive a parameter which is indicative of the traffic meeting a peak cell rate (PCR) requirement.

8. A method according to claim 7 wherein the second time interval is a shorter interval than the first interval.

9. A method according to claim 8 wherein the second time interval is in the range 50 - 500ms.

10. A method according to claim 9 wherein the second time interval is 100ms.

11. Apparatus for monitoring flow of packet-based communications traffic comprising:

- means for setting a first time interval over which measurements are to be made;
- means for counting number of packets flowing during that time interval;
- means for using the count to derive parameters which are indicative of the traffic meeting a sustained cell rate (SCR) requirement.

12. Apparatus for monitoring flow of packet-based communications traffic comprising a processor which performs the steps of:

- setting a first time interval over which measurements are to be made;
- counting number of packets flowing during that time interval;
- using the count to derive parameters which are indicative of the traffic meeting a sustained cell rate (SCR) requirement.

13. A computer-readable medium whose contents cause a processor of apparatus for monitoring flow of packet-based communications traffic to perform the steps of:

- setting a first time interval over which measurements are to be made;
- counting number of packets flowing during that time interval;
- using the count to derive parameters which are indicative of the traffic meeting a sustained cell rate (SCR) requirement.